Tripp Lite
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SmartOnline 20kVA 16kW Modular 3-Phase UPS System, On-line Double-Conversion UPS, SNMP, Webcard, DB9 Serial

MODEL NUMBER: **SU20KX**

Highlights

- 20,000 VA (20kVA) 3-phase tower UPS
- 1+1 parallel capability allows for system redundancy or increased capacity
- Low THDi reduces installation costs by permitting 1:1 generator sizing
- 3-phase hardwire (220/380V, 230/400V or 240/415V AC, 3-phase, 4-wire + ground, wye) input/output
- IGBT technology and zero transfer time, on-line, double-conversion operation
- Runtime is expandable with the addition of two SURBC2030 internal battery packs or via external battery cabinet options

Package Includes

- SU20KX UPS System
- PowerAlert Software
- Instruction manual
- Warranty information

Description

Tripp Lite's SU20KX (20kVA) SmartOnline Modular 3-Phase Intelligent, True On-Line UPS System provides 100% system availability with 1+1 parallel capability. In 1+1 configuration , two SU20KX models connected in parallel can provide fail-safe redundancy (two 20kVA models supporting a 20kVA load) or increased capacity (two 20kVA models supporting an 40kVA load). The SU20KX provides mission-critical equipment with the highest level of power protection available. Large capacity 20,000VA/16,000W UPS continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Perfectly regulated, continuous sine wave output with zero transfer time assures compatibility with all equipment types. High input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology produce less than 3% input total harmonic distortion (THDi). With low THDi, generators run cooler and last longer, allowing managers to save installation costs by installing a generator with a capacity equal to the equipment load (1:1 ratio). Extremely efficient operation (up to 97%) saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU-style power connections. The SU20KX features 50 or 60 Hz (auto-selectable) frequency. The SU20KX combines internal power and battery modules in a single small-footprint tower compartment. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional stand-alone hardwired external battery modules (Models BP480V26B and BP480V40C, available separately). A manual bypass breaker and an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power if the UPS requires maintenance.

Features

- 1+1 configuration: Two SU20KX can be connected in parallel to provide either fail-safe redundancy or increased capacity
- Low THDi (less than 3%) reduces installation costs by allowing 1:1 generator sizing
- Extremely efficient operation (up to 97%) saves money by reducing electricity consumption
- True on-line, double-conversion UPS with IGBT technology provides pure sine wave AC output at all times
- Maintains continuous operation with zero transfer time through blackouts, voltage fluctuations and surges
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 20,000VA/16,000W power capacity with 3-phase, hardwire input/output connections
- Wide input voltage correction range: 173-276V/300-477V AC

- Precision +/-1% output voltage regulation
- Internal power and battery modules are combined in a single small-footprint tower compartment. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional stand-alone hardwired external battery modules (Models BP480V26B and BP480V40C, available separately)
- Front panel combination LCD/LED display includes a real-time event log screen with up to 500 events listed
- Dynamic battery management screen optimizes battery function to lengthen service life and allow cold restart of the UPS
- Built-in RS-232 communication port works with included PowerAlert Software to provide shutdown commands and reporting on a single server
- Accessory slot accepts an optional internal SNMP card (Model SNMPWEBCARD) for remote shutdowns, reboots and more
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- Built-in Emergency Power Off (EPO) dry-contact interface supports remote emergency shutdown in large facilities

Specifications

General Info	
RoHS	Y
OUTPUT	
Output Volt Amp Capacity (VA)	20000
Output kVA Capacity (kVA)	20
Output Watt Capacity (Watts)	16000
Output kW Capacity (kW)	16
Power Factor	0.8
Crest Factor	3:1
Nominal Output Voltage(s) Supported	220/380V; 230/400V; 240/415V; 3-Phase Wye
Frequency Compatibility	50 / 60 Hz
Output Voltage Regulation (Line Mode)	+/-1%
Output Voltage Regulation (Battery Mode)	+/-1%
Output Receptacles	Hardwire
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	28A / 29A / 30A
Nominal Input Voltage(s) Supported	220/380V (3ph wye); 230/400V (3ph wye); 240/415V (3ph wye)
Nominal Input Voltage Description	3-Phase Wye, 4 wire (L1, L2, L3, N, G)
UPS Input Connection Type	Hardwire

Input Phase	3-Phase
BATTERY	
Full Load Runtime (min.)	5.5 min. (16kw)
Half Load Runtime (min.)	13 min. (8kw)
Expandable Battery Runtime	Supports extended runtime with optional external battery packs
External Battery Pack Compatibility	BP480V103 ; BP480V140 ; BP480V26B ; BP480V40C ; BP480V55 ; BP480V78 ; BP480V200 ; BP480V300 ; BP480V400 ; BP480V500
Expandable Runtime Description	External battery pack wiring is contractor supplied
DC System Voltage (VDC)	+/- 240VDC
Internal UPS Replacement Battery Cartridge	SURBC2030
Battery Replacement Description	Hot-swappable, replaceable batteries
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	Maintains continuous operation without using battery power during overvoltages to 276-477 (3-phase, 4-wire, wye), reducing output within 1% of nominal
Undervoltage Correction	Maintains continuous operation without using battery power during brownout/undervoltage conditions to 173-300 (3-phase, 4-wire, wye)
USER INTERFACE, ALERTS & CONTROLS	
Switches	ON button turns UPS inverter on. OFF button turns UPS inverter off. LCD Display Control Buttons browse through and select items displayed on LCD screen. EPO (Emergency Power Off) button turns UPS output off and disables Bypass output
Alarm Cancel Operation	Power-fail alarm can be silenced using alarm-cancel switch
Audible Alarm	Alarms signal a variety of operational conditions: low-battery, overload, shutdown, bypass and more
LED Indicators	4-LED Display: Displays normal AC input, on battery power, bypass input and fault conditions
SURGE / NOISE SUPPRESSION	
EMI / RFI AC Noise Suppression	Yes
AC Suppression Joule Rating	5950
AC Suppression Response Time	Instantaneous
PHYSICAL	
Installation Form Factors Supported with Included Accessories	Tower
Primary Form Factor	Tower
UPS Power Module Dimensions (hwd, in.)	46 x 20.5 x 33.7

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UPS Power Module Dimensions (hwd, cm)	116.8 x 52.1 x 85.6
Installed Whole System Maximum Rack Depth (cm)	0
UPS Power Module Weight (lbs.)	588.6
UPS Power Module Weight (kg)	267.2
UPS Shipping Dimensions (hwd / in.)	55 x 28.5 x 42.5
UPS Shipping Dimensions (hwd / cm)	139.7 x 72.4 x 108
Shipping Weight (lbs.)	738.5
Shipping Weight (kg)	335.3
Cooling Method	Fans
UPS Housing Material	Steel
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	3053
COMMUNICATIONS	
Communications Interface	DB9 Serial; Slot for SNMP/Web interface
PowerAlert Software	Included
Communications Cable	DB9 cabling included
LINE / BATTERY TRANSFER	
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Low Voltage Transfer to Battery Power (Setpoint)	Maintains continuous operation without using battery power during brownout/undervoltage conditions to 173-300V AC (3-phase, 4-wire, wye). Below this point, output is maintained utilizing reserve battery power
High Voltage Transfer to Battery Power (Setpoint)	Maintains continuous operation without using battery power during overvoltages to 276-477V AC (3-phase, 4-wire, wye), reducing output within 1% of nominal. Above this point, output is maintained utilizing reserve battery power
SPECIAL FEATURES	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries
Green Energy-Saving Features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation
CERTIFICATIONS	

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UPS Certifications	CE
WARRANTY	
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	1-year limited warranty
Product Warranty Period (Puerto Rico)	2-year limited warranty

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